IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTERNATIONAL BUSINESS MACHINES CORPORATION, Plaintiff, v. THE PRICELINE GROUP INC., KAYAK SOFTWARE CORPORATION, OPENTABLE, INC., AND PRICELINE.COM LLC Defendants.	)	C.A. No. 15-137-LPS-CJB **JURY TRIAL DEMANDED**

IBM'S SUR-REPLY TO DEFENDANTS' MOTION TO DISMISS

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SUMMARY OF THE ARGUMENT

Rather than examining the claims of the Patents-In-Suit to determine whether they are directed to abstract ideas, Defendants ignore all meaningful limitations and focus on isolated phrases that do not capture the inventions. This tactic unravels, however, when Defendants are forced to confront the claim language in their "brick and mortar" scenarios. As a result, Defendants' Reply is largely a "do over" that rewrites their existing scenarios and creates new ones from scratch. Defendants' continued inability to come up with plausible scenarios is not a failure of imagination—rather it demonstrates that the inventions are directed to problems rooted in computer technology and solutions that have no "brick and mortar" equivalent.

Defendants also ignore the claimed inventive concepts while focusing on new but cumulative case law. The detailed specifications of the Patents-In-Suit provide definitions for key claim terms, thereby incorporating implementation details into the claimed inventions. Yet the sum total of Defendants' analysis of IBM's potential constructions is to ignore them: "Plaintiff's proposed constructions do not—and cannot—transform the abstract claims into patentable subject matter." Likewise, Defendants dismiss all dependent claims as "generic" without further analysis. Defendants simply cannot meet their burden to show that the claims are invalid because they fail to address inventive concepts explicit in the claim language.

ARGUMENT

I. The Claims Of The '346 Patent Are Not Invalid Under 35 U.S.C. § 101

A. Defendants Cannot Show That The Claims Of The '346 Patent Are Abstract

The independent claims of the '346 Patent are directed to creating a user account during a single-sign-on operation in a federated computing environment.[1] Defendants, however,

[1] Likewise the title of the '346 Patent is "method and system for a runtime user account creation operation within a single-sign-on process in a federated computing environment."

mischaracterize the claims as directed solely to "access rights." Now, Defendants admit that they based their position not on the claims, but on the fact that the Complaint uses the word "access" in its description of the ***prior art***.[2] D.I. 25, at 2 (citing D.I. 1 ¶ 22). Defendants' assertion that "a detailed examination" of the claims is not required under *Alice* Step One, D.I. 25, at 3, does not justify a wholesale departure from the key elements of the claims. *Ameranth, Inc. v. Genesis Gaming Solutions, Inc.*, No. SACV 11-00189 AG (RNBx), 2014 WL 7012391, at *6 (C.D. Cal. Nov. 12, 2014). *Alice* Step One analyzes the invention to which the ***claims*** are directed. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258 (Fed. Cir. 2014).

Defendants fail in their attempt to distinguish *Intellectual Ventures I LLC v. Symantec Corp.*, C.A. No. 10-1067-LPS, 2015 WL 1843528, at *18-19 (D. Del. Apr. 22, 2015).[3] Like the claims in *Intellectual Ventures I* that addressed computer-centric problems relating to "computer viruses," the claims of the '346 Patent address computer-centric problems relating to single-sign-on operations.[4] Defendants' assertion that the '346 Patent is different from the *Intellectual Ventures I* patent because it does not disclose coordination between three computers is nonsense. *See* D.I. 25, at 4. In fact, the '346 Patent contains flowcharts showing how clients, service

[2] The next paragraph of the Complaint explains that, unlike the prior art, the invention operates within a federated computing environment to create a user account during single-sign-on.

[3] Defendants cite the recent case of *Internet Patents Corp. v. Active Networks Inc.*, Nos. 2014-1048, et. al, slip op. at 12 (Fed. Cir. June 23, 2015) for the proposition that claims related to computer concepts may nevertheless be abstract. That case simply confirms the Federal Circuit's guidance that while "not all claims purporting to address Internet-centric challenges are eligible for patent," claims that "specify ***how*** interactions with the Internet are manipulated to yield a desired result" are patent-eligible. *DDR Holdings*, 773 F.3d at 1258 (emphasis added).

[4] Defendants' Reply opens by asserting that "Plaintiff . . . fundamentally misapplies the applicable legal standard for determining patentability under Section 101" because "an identification of the underlying problems purportedly addressed by Plaintiff's patents" is not required. D.I. 25 at 1. That assertion is misleading at best. This Court found in *Intellectual Ventures I* that a challenged patent was directed to patentable subject matter under *Alice* Step One largely because the claims were directed to a "problem specifically arising in the realm of computer networks." 2015 WL 1843528, at *17-19 (citing *DDR Holdings*, 773 F.3d at 1257).

providers, and identity providers can interact in a federated computing environment. D.I. 23, at Exhibit B, C. This Court relied on similar flowcharts illustrating the interaction between three computers in *Intellectual Ventures I*. 2015 WL 1843528, at *18-19.

B. Defendants Cannot Fix Their Flawed Brick And Mortar Scenario

Defendants cannot reconcile the fundamental incongruity between the claims of the '346 Patent and their "Sister Store" analogy. Defendants do not dispute that the preamble of claim 1 is limiting. Nor do Defendants dispute IBM's potential construction[5] for "federated computing environment":

> a set of distinct entities, such as enterprises, organizations, institutions, etc., that cooperate to provide a single-sign-on, ease-of-use experience to a user by authenticating users, accepting authentication assertions, e.g., authentication tokens, that are presented by other entities, and providing some form of translation of the identity of the vouched-for user into one that is understood within the local entity, wherein the enterprises need not have a direct, pre-established, relationship defining how and what information to transfer about a user.[6]

D.I. 23, at Exhibit K; *see also* 10:62-11:7. Nevertheless, Defendants inexplicably ignore the entire preamble, including the federated computing environment limitation. D.I. 25, at 5. Sister Stores do not operate in a federated computing environment because, among other things, the grocery store does not "provid[e] some form of translation of the identity of the vouched-for user," rather it simply transfers the entire "list of all the grocery store's members." *Id.*

In addition, Defendants' amended Sister Store analogy still ignores the "triggering a single-sign-on operation" limitation. D.I. 25, at 7. As a result, Defendants' analogy fails to identify ***any*** "brick and mortar" action corresponding to triggering a single-sign-on operation,

[5] Defendants argue that their motion to dismiss is ripe because there is no dispute as to claim construction. D.I. 2, n. 2. Accordingly, this motion should be decided based on the potential constructions set forth by IBM in its opposition brief. D.I. 23, at Exhibit K.

[6] The federated computing environment claim language provides additional evidence that the '346 Patent, like the "computer virus" patent in *Intellectual Ventures I*, concerns coordination between specifically programmed computers.

and thus cannot execute the security functions of single-sign-on operations: confirming the identity of the user by authenticating the user's account. D.I. 25, at 8-9. Although Defendants "amend" the last two rows of their Sister Store chart, they do not amend the first row concerning the "triggering a single-sign-on operation" limitation (which only appears in the opening brief). D.I. 19, at 10. Instead, in a footnote, Defendants propose a vague and confusing alternative scenario involving access cards and ID numbers. D.I. 25, at 5, n.11. Defendants offer no explanation for how that new proposal is compatible with the other aspects of Defendants' Sister Store analogy, which does not mention access cards or ID numbers, nor is there any explanation for how the newly proposed process would authenticate a user. Thus, Jane Clerk cannot create an account for Joe Shopper because she has no way of knowing that he is the same person who was granted access to the grocery store. Defendants also make a passing reference to using a "secret passcode" but they make no effort to associate the proposed passcode with the first row of their Sister Store scenario. D.I. 19, at 10; D.I. 25, at 5. Nor do they explain how a secret passcode would allow the electronics store to authenticate that the shopper possessing the passcode is the same person who was granted access to the grocery store.

C. Defendants Do Not Address The Inventive Concepts Of The '346 Patent

Defendants cite a new case, unrelated to computers, *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 2015 WL 3634649, at *7 (Fed. Cir. June 12, 2015), in an attempt to characterize how the '346 Patent implements single-sign-on as overly preemptive. But Defendants concede that under *DDR Holdings*, patents claiming "how interactions with the Internet are manipulated to yield a desired result" contain an inventive concept and are valid under 35 U.S.C. § 101. D.I. 25, at 6. Defendants therefore argue that the '346 Patent does not disclose "***how*** it eliminates the requirement that users have preexisting accounts." *Id.* But the claims themselves specify that this occurs through the ordered combination of, among other things, (1) "triggering a single-sign-

on operation," (2) receiving "an identifier associated with the user," which (3) allows "creating a user account for the user" based on "the received identifier," before (4) generating "a response for accessing the protected resource." '346 Patent, claim 1. The concept of dynamically creating user accounts in a federated computing environment was inventive because it required the foresight to understand that as computers become more interconnected, they could piggyback off of each other's user account information—even if they did not have a preexisting relationship—as long as they could understand identifiers associated with those users. '346 Patent, at 2:36-48; D.I. 1, at ¶ 23. Furthermore, the specification depicts detailed dataflow diagrams that enable the ordered combination of steps claimed by the '346 Patent. D.I. 23, Exhibits B, C. The specification discloses circumstances where the request originates from the second system, as recited by claim 3, from the first system, as recited by claim 4, or where the "identifier" does not contain sufficient "user attribute information," as recited by claim 5.[7] '346 Patent Figs. 9-11.

II. The Claims Of The '601 Patent Are Not Invalid Under 35 U.S.C. § 101

A. Defendants Cannot Show That The Claims Of The '601 Patent Are Abstract

The '601 Patent is directed to transforming communications using stateless protocols by embedding state information into continuations. But Defendants impermissibly strip all concrete concepts out of the claims to avoid addressing the concepts of "embedding," "continuations," or "stateless protocols." Defendants' Reply once again admits that Defendants selectively quote a paragraph of the Complaint that describes the ***prior art*** to support their generic characterization.[8] D.I. 25, at 8 n. 17 (*citing* D.I. 1 at ¶20). Once again, this focus on the Complaint instead of the

[7] Defendants cite *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014) to justify their failure to analyze the dependent claims. But the plaintiff in *Content Extraction* did not contest the defendants' characterization of the representative claims. Here, IBM has shown that the dependent claims, like claims 3, 4, and 5 of the '346 Patent, contain additional inventive concepts that preclude a finding of invalidity.

[8] The next paragraph of the Complaint explains that, unlike the prior art, the invention transforms Internet communications by embedding state information into continuations.

claims is improper. *DDR Holdings*, 773 F.3d at 1256. The '601 Patent is patent eligible because it is directed to solving a computer-specific problem: maintaining state information when using stateless protocols. *Intellectual Ventures I*, 2015 WL 1843528 at *18-19.

B. Defendants Cannot Fix Their Flawed Brick And Mortar Scenario

Defendants argue that the Telephone Order scenario is analogous to using a "stateless protocol" because the ***telephone itself*** does not remember state information, D.I. 25, at 9 n. 21. That argument is non-responsive to the fundamental incongruity between Defendants' scenario, where the ***human participants using the telephone*** naturally remember the state of the conversation, and the claims, where the computers using a stateless protocol do not. Defendants' scenario attempts to address a problem that does not exist in the brick and mortar world.

Defendants' failed attempt to correct the "Telephone Order" scenario only makes the problem worse. Defendants' previous scenario associated "recursively embedding" with writing information down, while Defendants' amended scenario associates "recursively embedding" with repeating information back to the customer. *Compare* D.I. 19 at 18 *with* D.I. 25 at 9. But in the claims themselves, the "recursively embedding" element is distinct from the "communicating the output to the client" element. '601 Patent, claim 1. Defendants conflate the two steps.

Furthermore, in the Telephone Order scenario, the entire conversation would sound like gibberish to both the customer and the merchant because the claims require embedding the state information (which Defendants associate with repeating the details of the order) "in all identified continuations" (which Defendants associate with the options that the merchant provides to the customer) every time the parties communicate "for the duration of the conversation." '346 Patent, claim 1. Any tortured reenactment of this computer-specific process in the real world would require the merchant to repeat the state of the conversation *ad nauseum* until the customer hangs up the phone in frustration—after pleading with the merchant to stop continually repeating

information he already knew. The claimed process of embedding separate instances of state information into all identified continuations ***only*** makes sense in the computer world because, unlike the merchant and frustrated customer, the client and server do not retain state information.

C. Defendants Do Not Address The Inventive Concepts Of The '601 Patent

Defendants cite a new case, *Mkt. Track, LLC v. Efficient Collaborative Retail Mktg., LLC*, No. 14 C 4957, 2015 WL 3637740, at *10 (N.D. Ill. June 12, 2015), to accuse IBM of improperly focusing on preferred embodiments rather than the claims of the '601 patent. D.I. 25, at 9-10. But the independent claims recite "recursively embedding the state information in all identified continuations" to transform communications using a "stateless protocol." '601 Patent, claims 1, 27, 40, 51, 60. And Defendants do not dispute IBM's potential construction of "continuation" as "a new request, logically related to the original request, which a client may send to a server, such as a hyperlink." D.I. 23, Exhibit K. Thus, while it is true that the independent claims cover protocols other than HTML, or ways of preserving state information other than CGI programs, the inventive concept of identifying where a stateless protocol allows for new requests, *i.e.* continuations, and embedding state information into those continuations remains an essential part of every independent claim. *Mkt. Track* is therefore distinguishable both because the independent claims of the '601 Patent recite inventive concepts, such as recursively embedding state information in continuations, and because the dependent claims, such a claims 8 and 13, are closely tailored to additional inventive concepts in the preferred embodiments. *Id.*

Defendants attempt to distinguish *Messaging Gateway Solutions, LLC v. Amdocs, Inc.*, C.A. No. 14-732-RGA, 2015 WL 1744343, at *5 (D. Del. Apr. 15, 2015) by asserting that no translation or transformation is actually claimed. D.I. 25, at 10. That argument ignores the claim language, which specifies that transformation occurs by "recursively embedding the state

information in all identified continuations." *See* '601 Patent, at claim 1. Exhibits D-F to IBM's Opposition Brief illustrate how that transformation takes place in a preferred embodiment[9] and provide context for how the claims would function outside of the preferred embodiments regardless of, for example, what stateless protocol is used or what state information is embedded into the continuations. D.I. 23, Exhibits D-F. The claimed transformations constitute inventive concepts. *DDR Holdings*, 773 F.3d at 1258 (finding "a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink" to be an inventive concept).

III. The Claims Of The '967 And '849 Patents Are Not Invalid Under 35 U.S.C. § 101

A. Defendants Cannot Show That The Claims Of The '967 And '849 Patents Are Abstract

Defendants continue their fruitless search for alleged abstract ideas for the Filepp Patents, this time settling on "local storage of information and resources at a user's computer, presenting a partitioned display, and presenting a user with targeted advertising that is stored on the user's computer." D.I. 25, at 11-12. Defendants' characterization concedes that the claims are intrinsically linked to computers but ignores the other aspects of the Filepp Patents: ***reusable objects*** that make up interactive applications, ***selective*** storage of those objects, and ***as-needed*** retrieval of new objects. The Filipp Patents thus "improve the functioning of the [host] computer" by breaking applications into objects that can be more efficiently processed and are therefore directed to patent-eligible concepts. *Intellectual Ventures I*, 2015 WL 1843528, at *20 (*quoting Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2359 (2014)).

[9] Defendants state that Exhibits D-F do not appear in the '601 Patent. In fact, Exhibit D is a highlighted version of Fig. 1, Exhibit E is a highlighted version of Table 1, and Exhibit G is a highlighted version of Figs. 9a and 9a'. Figure F depicts the transformation disclosed at 14:30-45 as it applies to Table 1.

B. Defendants' New Brick And Mortar Scenario Is Flawed

Defendants propose a completely new "Office" scenario in an untimely and flawed attempt to create a brick and mortar analogy to the '967 Patent.[10] Element "c" of the '967 Patent most clearly exposes the irreparable flaws in the Office scenario. Defendants propose no corresponding instrumentality for the claimed "second partition" and therefore have no explanation for how it is "generat[ed] concurrently with the first partition," "constructed from objects," (as required by element a) or "for presenting a plurality of command functions." D.I. 25, at 13-14. Nothing on Mike's desk can be analogized to command functions that permit movement between applications because, unlike the claimed data objects, sheets of paper cannot execute command functions. D.I. 23, Exhibit K; '967 Patent, at 5:52-58.

In addition, there are fundamental differences between storage of virtual objects in the computer realm and storage of physical objects in an office setting. It makes sense to selectively store local copies of reusable data objects that make up an application partition in the computer realm because they can be automatically reassembled to create a partition to display to the user, and may be electronically duplicated and reused to make the network more efficient. D.I. 23, at 25. But in the Office scenario, it makes no sense to store some of the pages of a file at the office and others at the file room because each time Mike wants a new file he has to go all the way to the file room to get the missing pages before using the file, regardless of whether he needs one sheet of paper or several to complete the file. Likewise, collecting and assembling the relevant sheets of paper every time Mike "shift[s] his attention to a different file" would be unworkable. *See* D.I. 25, at 13. In sum, Defendants' new Office scenario ignores both the claim elements and fundamental differences between virtual and physical storage.

[10] The fact that both sides apparently agree that the claims of the '849 Patent could not be performed by a human alone is evidence that they are patent-eligible. *Helios Software, LLC v. SpectorSoft Corp.*, C.A. No. 12-081-LPS, 2014 WL 4796111, at *17 (D. Del. Sept. 25, 2014).

C. Defendants Do Not Address The Inventive Concepts Of The '967 And '849 Patents

There is no dispute that the essential concepts of the Filepp Patents—using application partitions to organize objects into subsections that can be displayed "concurrently," using objects compatible with the user reception systems, selectively storing objects, and retrieving only those objects that are not available locally—were novel in the 1980s. But now Defendants argue that "nothing about the host computer's operation actually changes under such a scenario," while admitting that "the Filepp patents . . . suggest asking the host system to do less processing . . ." D.I. 25, at 14. But reducing the processing load on the host system ***does*** improve the functioning of that computer. Moreover, Defendants' argument regarding lack of improvement is hard to reconcile with their admission that "the Filepp patents cover all of Defendants' webpages." D.I. 25, at 15. In any case, the "ordered combination" of the elements is more than the sum of its parts because the object elements allow applications to be broken down into discrete elements, the partition elements organize those objects, and the selective storage and as-needed retrieval elements take advantage of the ability to request only those parts (*i.e.* sets of objects) of the applications that are necessary to reduce the strain on processing, network, and storage resources. *Id.*; *see* D.I. 23, Exhibit I-J. Together the "combination of elements . . . is sufficient to ensure that the patent in practice amounts to significantly more" than any of the abstract concepts Defendants attempt to attribute to the Filepp Patents. *Alice*, 134 S. Ct. at 2355.

CONCLUSION

For the foregoing reasons, IBM respectfully requests that this Court deny Defendants' Motion To Dismiss.

Respectfully submitted,

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